

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Amendment of Part 97 of the)	
Commission's Amateur Radio Service)	RM-11831
Rules to Reduce Interference and)	
Add Transparency to Digital Data Communications)	

To: The Chief, Wireless Telecommunications Bureau
Via: ECFS

COMMENT

1. I support the proposed changes to Part 97 as written in RM-11831 with the following caveats.
2. In regard to encryption or lack of publicly documented technical characteristics, I am hereby adding technical background. The reader might want to review the definition of the word steganography in order to understand the following example. Using common English words, an amateur radio operator wishing to provide a secret answer to a question could transmit one of the following: "I am well." or "I have a cold.". By prior arrangement or simple deduction, the receiver of the message would understand the binary result that "I am well." means Yes, and "I have a cold." means No. Such text included in an innocuous story about eating toast for breakfast would safely be graded with a pass by any open source software decoding a transmission in CW, PSK31, or other well-known publicly documented amateur radio digital mode. Obviously the bit-rate of this method of encoding the real message would not suffice for high speed traffic, though successfully decoding the example words is probable in spite of a few errors due to background noise (per "Channel Capacity and Shannon's Theorem" in scholarly sources). Open-source software does not prevent use of steganography in digital communications nor in any other mode such as CW, Phone, or image. (Conjecture: steganography is impossible to defeat and can be largely undetectable.)
3. In regard to the proposed modification of §97.309(a)(4), the FCC might observe that the current ARRL Official Observer activities, and the upcoming new ARRL Volunteer Monitor activities can be substantially impacted by any transmissions having undetectable encoding, including the use of steganography. Therefore requiring publicly documented technical characteristics is an obvious need even if 100% coverage is impossible.
4. Conjecture: some station emissions conforming to §97.221(c) can be so short in time duration and so erratic in time of occurrence as to be nearly undetectable. I therefore leave the decision to permit or deny such ACDS operation to other parties including the FCC.

Respectfully submitted,
/S/
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